Below Ladder

By LCdr. Billy Ray Ipock

We were in the Persian Gulf, about two months into deployment, and scheduled for a night-bomb-smoke proficiency mission. It was a nice and short, Hornet-friendly, 1+15 cycle. A look at our planned fuel ladder showed we should have 2,000 pounds of fuel to play with.

We cleared our planned release area and dropped our smokes. As I broke into the pattern, I made a cursory check of my fuel state (for those of you who don't fly Hornets, we do that a lot). It showed only 1,000 pounds of mission gas. I was nose-up and left-wing-down, so I figured the tanks weren't reading accurately. I'd check it again when we were wings level.

I approached the roll-in point and saw one smoke burning in the water. Our SOP requires two smokes for reference when dive bombing at night, so we switched to our backup plan of level FLIR deliveries. I told my wingman to extend four miles. At wings level, one-G flight, I could recheck my fuel and fly the pattern at max-conserve if necessary.

As I turned inbound for the first run, I was busy trying to get my FLIR onto the smoke and get my release solution. I didn't check my fuel state until off-target. When I did check it, I was right on ladder. Something was wrong, so I checked with my wingman and confirmed he was 1,200 pounds above me. The hair definitely started to stand up. I had ham-fisted away all my gas and now had to choose to drop the rest of my bombs (and possibly be below min ramp fuel on the ball) or go to max-conserve altitude and not complete the mission.

I decided to make one final run at max-conserve in the pattern, release my remaining bombs, then climb to max-conserve altitude and hang on the blades while my wingman completed his runs. This would put me 500

and Going Lower

pounds below ladder, which I could make up in the descent if I timed my push perfectly. I would call the ball with 4,500 pounds, which was SOP for minimum ramp fuel. Certainly, 4,500 pounds is not optimum, but if it wasn't enough, it wouldn't be the minimum, right?

I managed to release my bombs and climbed to 29,000 feet. I looked down and did a quick double take—I was 1,500 pounds below ladder. OK, time to 'fess up and have someone work on getting me some gas. I started to double-check my ladder numbers just as my wingman finished his last run and got a tally on me with his goggles. He called on the radio to tell me that I was really conning. Then the big light bulb came on: I had a fuel leak.

He joined up and confirmed fuel was streaming from my right engine AMAD door. We quickly calculated I was losing 1,000 pounds every 15 minutes. I told Strike I would be two-point-five on the ball because of a fuel leak and called for a rep. The rep went through NATOPS for a fuselage fuel leak. It stated that if you can determine which engine is leaking, push the fire light and shut down the engine. It also has a big warning that says if you shut down the wrong one, they could both flame out. I checked all my instruments, feed quantities, and other items to confirm where the leak was coming from. Nothing. The only symptom was fuel coming from my right AMAD door. We decided a dual-engine flameout at night was probably not a good thing. Since the jet was behaving normally, I kept both engines on line.

I pushed for early recovery. I was holding at 2,000 feet, 10 miles behind the boat. Even after a long idle descent, I estimated my ramp fuel at 2,200 pounds (2,300 pounds below minimum). After what seemed like an eternity, marshal called and told me to commence immediately. I checked my fuel quantity every 30 seconds, telling anyone who would listen. We were operating blue water, but a divert was available. Al Jaber in Kuwait is about 180 miles northwest, but there was no way I could get there, even without the leak.

The fuel seemed to be departing my aircraft at an even faster rate, and just as I tipped over, CATCC broke off my approach because the deck wasn't clear and vectored me to a tanker. The S-3 was in position, at my two o'clock, at a mile. I quickly plugged and he squirted me 2,000 pounds of JP. With 4,200 pounds of gas, I began to unclench a bit. My voice dropped about two octaves. CATCC vectored me around for the approach, and, about five minutes later, I called the ball with 2,600 pounds (yes, the loss rate had increased). As soon as I trapped, it seemed like everyone on the boat with a yellow wand frantically signaled for me to shut down. I finally got the motors secured, and they towed me from the landing area. When I got out of the jet, I saw a long streak of fuel on the deck from the landing area to my spot. The fuel-spill crew was frantically trying to clean the mess.

In the ready room, we watched the tape of my recovery, and it still amazes me how much fuel was coming out of that airplane in the wires. Postflight inspection revealed the O-ring on the main-fuel-line coupling to the fuel control had failed.

This incident ended without any serious damage and provided some lessons learned. First, know what your fuel should be. The excessive fuel-burn rate should have tipped me off earlier that something was wrong. Second, if you think you have a problem, 'fess up early and completely. I could have decided to get extra gas airborne much earlier. Finally, crew coordination in a single-seater really pays off. My wingman had seen me conning from early in the flight, but I didn't know that, and he didn't know that my fuel was disappearing at an alarming rate. If we had communicated a little more effectively, we may have identified the problem much sooner and kept more of our options open.

LCdr. Ipock flies with VFA-137.